

3(9)

SOV/26-59-5-27/47

AUTHOR: Znamenskiy, Yu.P., Leningrad

TITLE: Underwater Observations to Assist Science

PERIODICAL: Priroda, 1959, Nr 5, pp 102 - 106 (USSR)

ABSTRACT: The author refers to the submarine laboratory equipped by the Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii (All Union Institute for Scientific Research in Sea Fisheries and Oceanography) (VNIRO). It was installed in a converted submarine of the Soviet Navy and is now equipped with instruments for collecting samples of sea water and sea beds, with hydrolocators, underwater TV sets, search-lights, photographic and cinema installations. The author considers that this laboratory cannot completely replace the work of individual research. The latter, as a profession and trade, has been known for 2,000 years in the Mediterranean and

Card 1/3

SOV/26-59-5-27/47

Underwater Observations to Assist Science

in the East, but modern equipment has enabled individual research to be carried out at a depth greater than 30 m and for periods of several hours, instead of minutes. In the Sektsiya podvodnogo plavaniya Leningradskogo voyenno-morskogo kluba (Underwater Swimming Section of the Leningrad Naval Club of DOSAAF) a number of enthusiasts are developing underwater exploration as a sport. Some of the more outstanding members are. Designers Iu.N. Pozdnyakov and S.N. Korshunov; Mechanics P.L. Stepanov and N.M. Ginzburg (designed an underwater rifle); V.I. Kebkalo and Yu.V. Vasil'yev (constructed underwater cameras). A similar section was formed at the Moskovskiy gosudarstvennyy universitet (Moscow State University). Among the better-known apparatuses there are: "Underwater DOSAAF-1" and "Underwater DOSAAF-2" ("Podvodnik-DOSAAF-1", "Podvodnik DOSAAF-2"). Another apparatus "Ukraine" was constructed by A.S. Gnamm. These apparatuses and

Card 2/3

SOV/26-59-5-27/47

Underwater Observations to Assist Science

other underwater devices are going into mass production. The author describes extensive research at fisheries, the filming of archaeological discoveries made underwater in all parts of the world, including the USSR sections of the Black and Baltic Seas, Caspian Sea, Sea of Azov, Aral Sea, and in the Pacific. There are 3 photographs and 10 Soviet references.

Card 3/3

ZNAMENSKIY, Yu.P (Leningrad)

"Conquest of the deep" by M.W.Dionidov, A.N.Dmitriev. Re-
viewed by Yu.P.Znamenskiy. Priroda no.6:120 Je '60.
(MIRA 13:6)

(Oceanographic research)
(Dionidov, M.W.) (Dmitriev, A.N.)

ZIVAMENSKIY, Yu. P.

ZHAMENSKIY, Yu. P. (Leningrad).

"Science and life on the screen." Nauka i zhizn' 24 no.10:50 0 '57.
(Motion pictures, Documentary) (MLBA 10:11)

ZNAMENSKIY, Yu.P. (Leningrad)

"To the amateur photographer and tourist" by K.V. Vendrovskii,
B.I. Zhutovskii. Reviewed by IU.P. Znamenskii. Priroda 51 no.7:91
Jl '62. (MIRA 15:9)

(Nature photography) (Vendrovskii, K.V.)
(Zhutovskii, B.I.)

ZNAMENSKIY, Yu.P. (Leningrad)

Footsteps of life. Priroda 52 no.7:120-122 J1 '63. (MIRA 16:8)
(Motion pictures, Documentary) (Biology--Audio-visual aids)

ZNAMENSKIY, Yn.P. (Leningrad)

"From silent to panoramic motion pictures" by E.M. Goldovskii.
Reviewed by Iu.P. Znamenskii. Priroda 50 no.11:59 N '61.

(MIRA 14:10)

(Motion picture) (Goldovskii, E.M.)

ZNAMENSKIY, Yu.P., (Leningrad)

Conditioned reflexes and the training of animals. in motion
pictures and on a circus arena. Priroda 52 no. 9:36-44 '63.
(MIRA 16:11)

ZNAMENSKIY, Yu.P. (Leningrad)

Discovery of the sixth continent; survey of literature on under-
water swimming and exploration. Priroda 50 no.7:122 J1 '61.

(MIRA 14:6)

(Diving, Submarine)

ZNAWENSKIY, Yu.P.

Motion picture "A story of prefabricated reinforced concrete."
Politekh.obuch. no.6:86-87 Je '57. (MIRA 12:4)
(Motion pictures, Documentary)

ZNAMEESKIY, Yu.P. (Leningrad)

Underwater observations serve science. Priroda 48 no.5:102-106
My '59. (MIRA 12:5)

(Diving, Submarine)

ЗНАМЕНСКИЙ, Ю.П.
ZNAMENSKIY, Yu.P.

Motion pictures and technical education . Politekh. obuch. no.1:40-49
Ja '58. (MIRA 10:12)

(Motion pictures in education) (Technical education)

GOL'DBERG, N.A.; ZNAMENSKIY, Yu.D

Nitridation kinetics of calcium carbide. Dokl. AN SSSR 120
no. 1:148-150 Ky-Je '58. (MIRA 11:7)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut
azotnoy promyshlennosti. Predstavleno akademikom S.I.Vol'fkovichem.
(Calcium carbide)
(Case hardening)

ZHAMENSKIY, Yu. D.
GOL'DBERG, N.A.; ZHAMENSKIY, Yu.D.

Nitration kinetics of calcium carbide as related to
granulometric composition. Dokl. AN SSSR 110 no.6:
1048-1052 0 '56.

(MLBA 10:2)

1. Gosudarstvennyy nauchno-issledovatel'skiy i projektnyy institut
azotnoy promyshlennosti. Predstavleno akademikom S.I. Vol'fkovichem.
(Calcium carbide) (Nitration)

ZNAMENSKIY, Yu.P., nauchnyy rabotnik.

Marine algae. Nauka i pered.op. v sel'khoz. 7 no.8:38-39 '57.
(MIRA 10:9)

(Algae)

ZNAMENSKIY, Yu. P.
AUTHOR:

Znamenskiy, Yu.P. (Leningrad)

25-10-22/41

TITLE:

"Science and Life on the Screen" ("Nauka i Zhizn' na ekrane")

PERIODICAL:

Nauka i Zhizn', 1957, # 10, p 50 (USSR)

ABSTRACT:

The film section of the Leningrad House of Scientists imeni M. Gor'kiy of the USSR Academy of Sciences started to issue a film almanac "Nauka i zhizn' na ekrane". The authors are Leningrad film amateurs. Filming for the almanac is done by the amateurs with 16 mm film cameras on reversible films. Very soon amateur sound moving pictures will be possible by applying to the film a magnetic layer. The sound is reproduced by a tape recorder head installed in the film projector.

A new narrow film camera "KNEB-16-C-2" has been produced for film amateurs. Its weight is 1,0 kg; the length of one film amounts to 15 m; its two installed objectives can be used alternatively; filming can be done at a rate of 16, 24, 32, 48 and 64 frames per second.

There is one photograph.

AVAILABLE:

Library of Congress

Card 1/1

AUTHOR: Znamenskiy, Yu.P. (Leningrad) SOV-25-58-9-39/52
TITLE: Submarine Agriculture (Podvodnoye zemledeliye)
PERIODICAL: Nauka i zhizn', 1958, Nr 9, p 68 (USSR)
ABSTRACT: The utilization of different sea weeds in various branches of industry is described. Laminariaceae and rockweeds are widely used as food for livestock. Some weed species are used in industry as raw material from which alcohol, alginates, ethers and acetic acid are extracted. From the agar-bearing weeds, agar-agar and "6-atom spirit" (mannite) are extracted. Rockweeds are used as a stabilizer of drilling fluids in the drilling of oil wells. The addition of these weeds keeps the boring bits from becoming clay encrusted.

1. Aquatic plants--Applications

Card 1/1

ZNAMENSKIY, Yu.P. (Ukhta, Komi ASSR)

~~XXXXXXXXXXXX~~

Fresh-water pearls. Priroda 44 no.8:109-110 Ag '55. (MIRA 8:10)
(Pearl fisheries)

ZNAMENSKIY, Yu.P. (gorod Ukhta Komi ASSR).

Young naturalists of the far North. Est. v shkole no.2:83-84

Mr-Apr '54.

(MLRA 7:3)

(Russia, Northern--Vegetable gardening)

(Vegetable gardening--Russia, Northern)

ZNAMENSKIY, Yu.P. (Leningrad)

Underwater agriculture. Nauka i zhizn' 25 no.9:68 S '58.
(Algae--Economic aspects) (MIRA 11:10)

ZNAMENSKY, M.S.; ODARYUK, T.S.

Homotransplantation of arteries based on total blood exchange to overcome tissue incompatibility. (Experimental study). Acta chir. plast. (Praha) 7 no.3:228-235 '65.

1. Department of Surgery and Regional Anatomy, Kirghiz State Medical Institute, Frunze (USSR) (Director: Prof. M.S. Znamensky).

ANTONOVSKAYA, M.A.; ZHAMENTUK, R.T.

Coordinated conference on the problem of "Mechanization and
automatization of coal and other ore mine surfaces." Izv.AN

SSSR.Otd.tekh.nauk.Met.i topl. no.3:149-150 My-Je '50.

(MIRA 13:6)

(Mining engineering--Congresses)

(Automatic control--Congresses)

BYKHOVSKIY, Izrail' Adol'fovich. Prinimali uchastiye: AL'EMOVICH, A.V.,
inzh.; YEFIMOV, K.A.; KRASIN, A.K., prof., doktor tekhn. nauk,
retsensent; ZHAMEPOVSKIY, B.P., kand. tekhn. nauk, retsensent; KU-
DINOV, N.N., inzh., retsensent; MISHKEVICH, G.I., red.; SHISHKOVA,
L.M., tekhn. red.

[Atomic ships] Atomnye suda. Pod red. N.N.Kudinova. Leningrad, Gos.
soiuznoe izd-vo sudostroit. promyshl., 1961. 310 p. (MIRA 14:9)
(Atomic ships)

BEZUKLADOV, V.F., inzh.; ZNAMEROVSKIY, B.P., inzh.

Tuna fishing vessel. Sudostroenie 28 no.3:1-4 Mr '62.
(Trawls and trawling) (Tuna fish) (MIRA 15:4)

VLADIMIROV, B.M.; ZNAMEROVSKIY, V.N.

Kimberlite pipe in the south of the Siberian Platform. Dokl.
AN SSSR 139 no.2:438-441 J1 '61. (MIRA 14:7)

1. Vostochno-Sibirskiy geologicheskii institut Sibirskogo otdeleniya
AN SSSR. Predstavleno akademikom D.I. Shcherbakovym.
(Belaya Zima Valley--Kimberlite)

ZNAMIEROWSKA, Monika.

Neurological indications for abortion; discussion. Neur. &c. polska
7 no.2:245-253 Mar-Apr 57.

1. Z Kliniki Neurologicznej A. M. w Poznaniu Kierownik: prof dr. A.
Dowzenko. Adres: Poznan, Trottera 14 m. 4.
(NERVOUS SYSTEM, in pregnancy,
ther. abortion (Pol))
(ABORTION, THERAPEUTIC, in var. dis.
neuro. dis. (Pol))

DOBEK, Maria; RUDNICKA, Maria; ZNAMIEROWSKA, Monika

Level of penicillin in the cerebrospinal fluid during therapy of neurosyphilis. Neur. &c. polska 6 no.3:321-328 May-June 56.

1. Z Klin. Neurolog. A.M. w Poznaniu, kier. prof. dr. A. Dowzenko. Z Zakladu Mikrobiol. A.M. w Poznaniu, kier. prof. dr. J. Adamski.

(PENICILLIN, in cerebrospinal fluid,
in ther. of neurosyphilis (Pol))

(CEREBROSPINAL FLUID,
penicillin, in ther. of neurosyphilis (Pol))

(NEUROSYPHILIS, therapy,
penicillin, retention rate in CSF (Pol))

ZNAMIEROWSKA-KOZIK, Monika

Electroencephalographic studies on genetic aspects of epilepsy.
Pozn. tow. przyjac. nauk wydz. lek. 27:341-371 '64.

ZNAMIROVSKI, V.

Determination of the H-D isotope effects by measurement of the vanadium electrode potential. Studii cerc fiz 14 no.3:233-237 '63.

1. Universitatea "Babeş-Bolyai", Cluj, Laboratorul de fizica atomica.

ZNAMIROVSKI, V.

The H-D isotopic effects in the behavior of electrodes with palladium powder. Studii cerc fiz 15 no. 2:247-251 '64.

1. The "Babes-Bolyai" University, Cluj.

ZNAMIROVSKI, V.

Determining the isotopic effects H-D by measuring the potential of tantalum electrode. Studii cerc fiz 13 no.5:765-773 '62.

1. Universitatea "Babes-Bolyai", Cluj.

ZNAMIROVSKIY, V.N.

Mercurial mineralization in the South of the Siberian Platform.
Dokl. AN SSSR 148 no.3:684-685 Ja '63. (MIRA 16:2)

1. Irkutskoye geologicheskoye upravleniye. Predstavleno akademikom D.I. Shcherbakovym.
(Siberian Platform--Mercury ores)

NIKLEWICZ-RODKIEWICZ, Jadwiga; ZNAMIROWSKA, Krystyna; SEWABOWICZ,
Krystyna

Evaluation of the trafuril reaction in rheumatic fever in
children. Reumatologia (Warsz.) 1 no.2:133-135 '63.

1. Z Wojewodzkiego Ośrodka Reumatologicznego w Sopocie
(dyrektor: dr J. Titz-Kosko).

ZNAMIROWSKI J.

ZNAMIROWSKI, J.

On the margin of the art of power; a review of a play.

p. 15 (Zolniers Polski) No. 22, Oct. 1957, Warszawa, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

POLAND

SZTABA, Romuald and ZNAMIROWSKI, Ryszard, Clinic of Child Surgery (Klinika Chirurgii Dziecięcej) in Gdansk (Director: Assoc. Prof., Dr. med. Romuald SZTABA)

"Tuberculosis of Mesenteric Nodes and Peritoneum in Children."

Warsaw, Polski Tygodnik Lekarski, Vol 18, No 12, 18 Mar 63, pp 417-420.

Abstract: [Authors' English summary] Authors report their observations concerning 18 children with tuberculosis of the peritoneum and of the mesenteric nodes. The etiopathogenesis, signs, and treatment are reported. In only one case did the x ray examinations reveal specific changes in the lung tissue. In most cases tuberculosis of the digestive tract may be presumed. Authors stress the role of the tuberculosis of the mesenteric nodes in the abdominal pains of the children. The 18 references include 6 Polish, 7 French, 4 German, and one (1) English source.

1/1

ZNAMIROWSKI, Ryszard

Healing of traumatic lesions of the skull in children. Pol. przegl.
chir. 36 no.12:1429-1435 D '64

1. Z Kliniki Chirurgii Dziecięcej Akademii Medycznej w Gdansk.
(Kierownik: dr. R. Sztaba).

SZTABA, Romuald; KRYNSKI, Stefan; MOLLARET, Henri; CYNOWSKI, Lucjan;
ZNAMIROWSKI, Ryszard.

Pseudotuberculous infection of the mesenteric nodes in
children. Pol. tyg. lek. 18 no.31:1149-1153 29 JI '63.

1. Z Kliniki Chirurgii Dziecięcej AM w Gdansk; kierownik:
dr med. R. Sztaba, z Zakładu Mikrobiologii AM w Gdansk;
kierownik: prof. dr St. Krynski, z Zakładu Dzwiny Instytutu
Pasteura w Paryżu; kierownik: dr J. Fournier i z Zakładu
Anatomii Patol, Szpitala Wojewodzkiego w Gdansk; kierownik:
dr L. Cynowski.

(PASTEURELLA INFECTIONS)
(MESENTERIC LYMPHADENITIS)

SZTABA, Romuald; ZNAMIROWSKI, Ryszard

Tuberculosis of the mesenteric nodes and peritoneum in children (according to observations on our cases). Pol. tygod. lek. 18 no.12:417-420 18 Mar '63.

1. Z Kliniki Chirurgii Dziecięcej w Gdansk; kierownik: s-ca prof. dr med. Romuald Sztaba.

(TUBERCULOSIS IN CHILDHOOD)
(TUBERCULOSIS, LYMPH NODE)

ZBAMROWSKI, Ryszard

Partial excision of the kidney in children. Polski przegl.
chir. 32 no. 5:459-463 Ky '60.

1. Z Oddziału Chirurgii Dziecięcej Akademii Medycznej w Gdańsku,
Kierownik Oddziału: s-ca prof. dr. R. Sztaba.
(NEPHRECTOMY in inf. & child)

ZNAN

Boring.

Double-shaft boring. Sila no. 3:36 Nr '52.

9. Monthly List of Russian Accessions, Library of Congress, July 1952 ~~1953~~, Uncl.

S/194/62/000/004/065/105
D295/D308

AUTHORS: Varlamov, M. L., Krichevskaya, Ye. L., Manakin, G. A.,
Znan, A. A., Kozakova, L. M. and Zorozhek, L. S.

TITLE: Investigation of the acoustical coagulation of aerosols formed in chemical factories

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,
no. 4, 1962, abstract 4-5-38g (V sb. Primeneniye ul'-
traakust. k issled. veshchestva. no. 12, M., 1960,
199-204)

TEXT: The coagulation of mists of sulphuric acid, of solutions of ammonium nitrate and nitride, of silicon-fluorhydric acid and coal-dust was investigated. Mists were precipitated in horizontal tubes of 45 mm diameter and 500 - 950 mm length, and dusts in vertical tubes. MC-2 (GS-2) generators, with a separating membrane of thin rubber, were used for sound-irradiating the gas. Coagulation monitoring was carried out by chemical and nephelometric control methods, as well as by determining the numerical concentration of

Card 1/2

Investigation of the ...

S/194/62/000/004/065/105
D295/D308

particles by means of the УМФ-3 (UMF-3) ultramicroscope. The concentration of H_2SO_4 mist amounted to 0.3 - 10.6 g/cm³; at an [ir-
radiation / level of 153 - 155 dB for the duration of 4 - 5 sec the ✓
degree of coagulation reaches 97 - 99%. The best results were obtained at frequencies of 16 and 22 kc/s. Data were presented on coagulation of mists containing fluorine compounds. [Abstracter's
note: Complete translation.]

Card 2/2

ZNANIECKI, P.

"Remarks on the Production of Pigs on Industrial Farms." p. 50,
(GOSPODARAKA MIESNA, Vol. 6, No. 2, Feb. 1954. Warszawa, Poland.)

SO: Monthly List of East European Accessions, (EEAL), LC,
Vol. 3, No. 12, Dec. 1954, Uncl.

ZNANSKI, J.

Rock bursts appearing simultaneously with earthquakes. p. 500.

PRZEGLAD GORNICZY. (Stowarzyszenie Naukowo-Techniczne Inzynierow i
Technikow Gornictwa) Katowice. Poland.
Vol. 15, no. 10/ 11, Oct./Nov. 1959.

Monthly List of East European Accessions (EEAI) IC, Vol. 9, no. 2, Feb. 1959.

Uncl.

[illegible]

ZNANSKI, J.

"Tendency of Rocks to Burst", P. 225, (ARCHIWUM GORNICTWA I HUTNICOSTWA,
Vol 2, No. 2, 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5,
May 1955, Uncl.

KORBEL, Kazimierz; PIEKARZ, Jerzy; PRZEWLOCKI, Kazimierz; GRANZKI, Jozef

Radiol isotopic measurements of flowing sand-water mixtures in pipelines by means of scintillation counters. Archiw gorn 7 no.1:49-58 '62.

ZHANSKI, J.

Short-wall system in seams liable to rock bursting.p. 205

Vol. 11, no. 6, June 1955, PRZEGLAD GORNICZY

So:MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, (EEAL), LC, Vol. 4, No.9,
Sept. 1955, Uncl.

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ZNANSKI, J.

✓ 1951. FUEL BEHAVIOR IN LIGHT OF LABORATORY EXPERIMENTS. ZNANSKI, J.
(Stalino: Prace Glin. Inst. Ser. (Centr. Chet. Inst. Min.), 1951,
Vol. XV, NO.2 : Ser. A, Kemiak. 143, 278p.). Coals and carboniferous rocks were compressed
Feb. 1954 to discover the conditions in which elastic energy is converted into a
sudden release of kinetic energy. These were found to be: close contact
Natural Solid and high friction between sample and base of press, a uniform, dense material
Fuels: Winning such as durain coal, and the development of high three dimensional stress in
the sample. (L).

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ZNATKOV, S.-----

Innovators of a metal-working plant. Metallurg ' no.7:38-39
Jl '62. (MIRA 15:7)
(Metalwork--Industrial innovations)

ЗНАТОКОВА, Т.Н.

ZNATOKOVA, T. N.

"Laws Governing Pressing and Baking of Copper-Reinforced
Ceramic Goods." Inst of Physical Chemistry of Acad Sci USSR, Zhdanov
Metallurgy Inst, Inst of Metallurgy of Acad Sci USSR, Moscow, 1955.
(Dissertation for the Degree of Candidate in Technical Sciences)

SO:: M-955, 16 Feb 56

"APPROVED FOR RELEASE: 03/15/2001

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CIA-RDP86-00513R002065320012-0"

NEGREYEV, V.F.; ZHAYCHENKO, S.G.; GARAYEV, Z.Sh.; SHAKHTAKHTINSKAYA, G.G.

Protecting the supports of offshore structures from corrosion in
the petroleum industry. Trudy Gipromornefti no.1:144-171 '54.
(Protective coatings)

ZNAYCHENKO, S. G.

Negreyev, V. P. and Znaychenko, S. G. "Fight against corrosion of the base openings of marine mining," Azerbaydzh. neft. khoz-vo, 1948, No. 11, p. 6-7.

SO: U-3264, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 4, 1949).

ZNAYEVA, K. I.

191154

USSR/Chemistry - Synthetic Pharmaceuticals Sep 51

"Synthesis of Certain Homologues of Aglucones of Cardiac Glucosides. I. Synthesis of Two Isomeric β -Phenanthryl- Δ^{α} - β -Butenolides," S. I. Kanevskaya, K. I. Znayeva, All-Union Sci Res Chemicophar Inst imeni S. Ordzhonikidze

"Zhur Obshch Khim" Vol XXI, No 9, pp 1726-1729

In order to test physiol effect of homologues of aglucones of cardiac glucosides contg phenanthryl radical, synthesized β -(3-phenanthryl)- and β -(2-phenanthryl)- Δ^{α} - β -butenolides, which gave legal reaction like aglucones of cardiac glucosides but lacked physiol effects of latter.

191154

BOZHEVICH, G.A., kandidat tekhnicheskikh nauk; ELINSON, M.P., kandidat tekhnicheskikh nauk

Bibliography ("Granulated blast furnace slags and slag cement."
P.P. Budnikov, I.L. Znachko-Iavorskiy. Reviewed by G.A. Bozhovich,
M.P. Elinson). TSement 21 no. 2: 27-28 Mr-Apr '55. (MIRA 8:8)
(Slag cement) (Budnikov, P.P.) (Znachko-Iavorskiy, I.L.)

ZNIDARSIĆ, J.

Extended activity of the Yugoslav Union of Radio Amateurs. p. 33.
(Radionamater, Vol. 11, no. 2, Feb. 1957. Beograd, Yugoslavia)

SO: Monthly List of East European Accessions (REAL) 10, Vol. 6, No. 7,
July 1957, Uncl.

ZNIDERSIC, BRANKO.

Prirucnik za polarno iskolicavanje prelaznih krivina u obliku klotoide.
Racunski izveli Aleksandar Mararov i Jaroslav Leskosek. Beograd, Izdavacko
preduzece Ministarstva gradevina FNRJ, 1949. 628 p. (Naučna gradevinska
biblioteka, knj. 4)

SO: EEAL, Vol. 5, No. 7 July 1956

ZNIDERSIC, B.

ZNIDERSIC, B. Critical survey of our technical legislation governing road planning. p. 452.

Vol. 4, No. 8/9, Aug./Sept. 1956.

CESTE I MOSTOVI

TECHNOLOGY

Zagreb, Yugoslavia

So: East European Accession, Vol. 6, No. 2, February 1957

ZIMINSKI, ZENON

Stolarstwo budowlane. (Wyd. 2.) Warszawa, Budownictwo i Architektura. (Building
carpentry. 2d ed. chiefly diagrs.)
Vol. 1. 1956. 195 p.

So. East European Accessions List

Vol. 5, No. 9

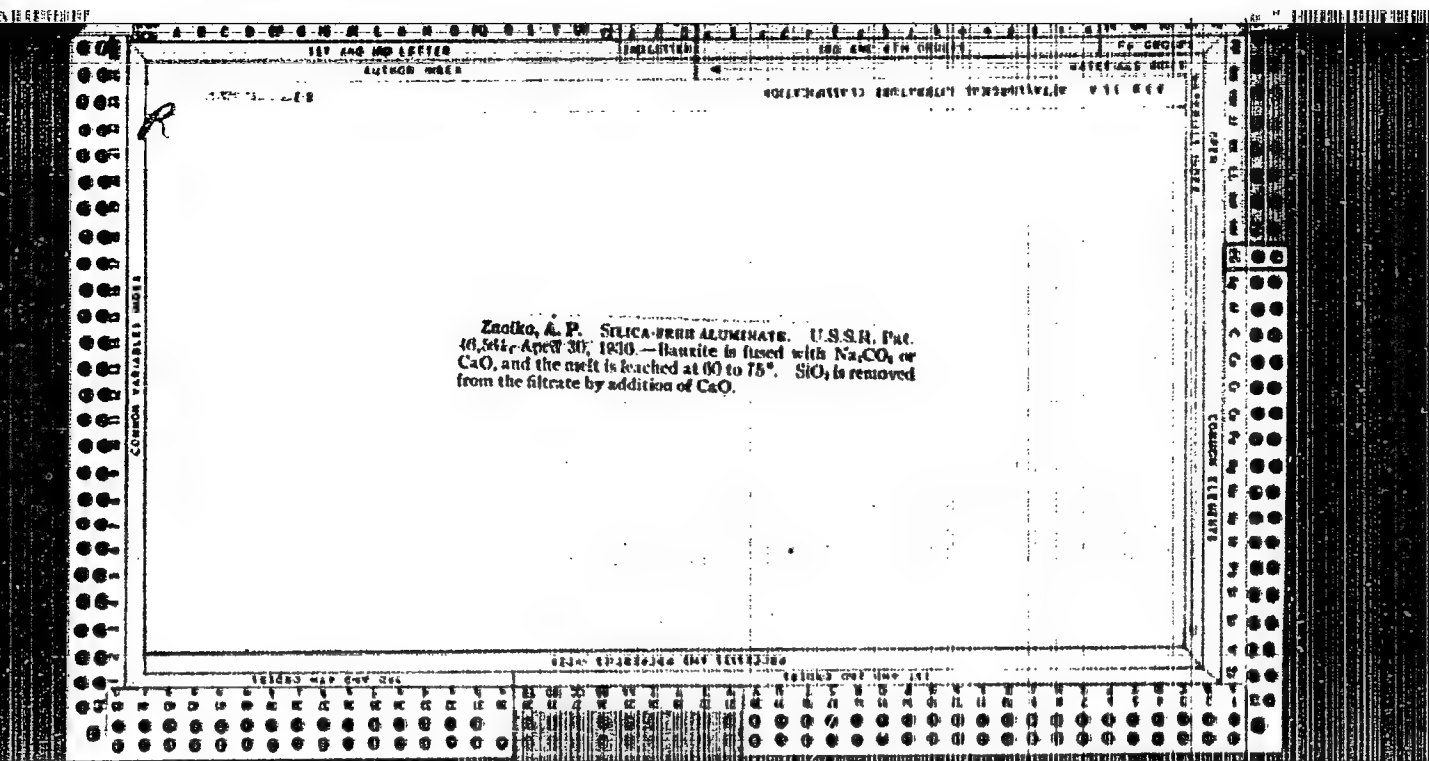
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CIA-RDP86-00513R002065320012-0"



ca

Silica-free aluminate. A. L. Ziegler. Russ. Zh. Khim.,
vol. 30, 1968. Barite is fused with Na₂CO₃, or CaO,
~~and~~ the melt is leached at 60-75°. SiO₂ is removed from
the filtrate by addn. of CaI.

AUG-SLA METALLURGICAL LITERATURE CLASSIFICATION

BRIEF SYNOPTIC

RECORDS - 12 MAY 1981

CALISTOGUE

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The problem of elements numbered 97 and 98. A. P. Zolotarev and V. I. Semishin. *Doklady Akad. Nauk S.S.S.R.* 74, 917-19 (1950); cf. preceding abstr. Exptl. data concerning types of radiation and half-lives of some isotopes of at. nos. 97 and 98 verify predictions previously made by Z., and based on observed nuclear regularities. For element no. 97 the name "Mendelev" (Md) is proposed. P. H. Murray

1957

117 and 118 600155

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ca

Silica-free aluminate. A. A. Zolotarev, Moscow, USSR, March 30, 1960. Results in fused with Na_2CO_3 at 1200°C. The melt is treated at 600°C. Not to be removed from the database by A. A. Zolotarev.

COMMON ELEMENTS

PERIODIC TABLE

ASB-61A METALLURGICAL LITERATURE CLASSIFICATION

6000 DIVISION

601000 01

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CA 3A

Periodic law of the atomic nuclei. Isotopes of the end of the periodic system. A. P. Zaitsev. Doklady Akad. Nauk S.S.S.R. 69, 100 71(1970); U.S. Pat. 44, 82454. On a coordinate system $(Z, Z/A)$ isotopes near the end of the periodic system are plotted with lines through isotopes with a const. A/Z . From rules announced in the preceding paper, the existence of 97^{10} , 98^{10} , 99^{10} , 100^{10} is indicated, with half-lives measured in yrs. The types of radiation and other properties can be predicted for isotopes of these atoms.

F. H. Murray

197

C.A.
1951

3A

Periodic system of atomic nuclei. Specific charge of the nuclei and periodic law of the isotopes. A. P. Zaitsev. Doklady Akad. Nauk S.S.R. 64, 837, 41 (1949); cf. C.A. 44, 8249. Isotopes are plotted on a coordinate system (A vs. Z , A) and the curves $A - 2Z = \text{const.}$ are drawn through them. The chart indicates the periodically changing structure and stability of the nuclei, and suggests types of radiation for unknown isotopes. Stable nuclei are plotted with coordinates (Z vs. Z , A), and 4 groups of elements are indicated by a smooth curve through them: Li - K, Ca - Rb, Sr - Cs, Ba - Ra. F. H. Murray

Periodic law of atomic nuclei. A. P. Zaitko. Doklady Akad. Nauk S.S.S.R. 68, 1021 (1949); 29, 1512, 837-41. Periodicities of nuclear structure are examined, with the curve for $R = Z/2$ vs. Z for selected "principal" isotopes. Of 5 periods found, the 1st 4 contain 18, 18, 18, 32 elements and end in Ca, Sr, Ba, Ra, resp., of Group II of the periodic table. $R = 0.5$ for even Z in the 1st period, with lower but rising values for Z odd. In the 2nd period, R increases from Sr to Zn and drops from Ca to Sr; the regularity in the 1st half period is attributed to the formation of α -particles with a const. no. of free neutrons, 4 for Z even,

5 for Z odd. In the 3rd period, V-Ba, R is nearly const. to Cd, then falls steadily to Ba. Values of R for the "principal" isotopes are arranged in a supplementary table to show the chem. analogies; the growth of electron shells is described for each nuclear period. P. H. M.

3331. The periodic law of atomic nuclei. Hypothetic nuclear charge and the periodic system of isotopes. A. P. Zvolko. *Dokl. Akad. Nauk, USSR*, 68 (No. 5) 857-82 (1949) (in Russian).

857-42 (1949) In Russian.
In order to study regularities in nuclear properties the specific nuclear charge Z/A for every known isotope is plotted against A (atomic wt.). Analyses of the graphs obtained establish the existence of 4 periods of atomic nuclei apart from the O group and incomplete 6th group. All points in the same vertical line correspond to isotopic isotopomers. The isotopes of each element can be joined by hyperbolae. The nuclei of the elements are disposed such that for $Z/A = 0.5$ all the nuclei having an isotopic number of $0 \cdot 0 \cdot 1 \cdot 2 \cdot 3 \cdot 4 \cdot 5 \cdot 6 \cdot 7 \cdot 8 \cdot 9$ lie on a straight line. All the remaining nuclei lie on curves for which μ can be $\pm 1, 2, 3, \text{ etc.}$, and which are called isotopic curves. These curves asymptotically approach the straight line $\mu = 0$, $Z/A = 0.5$, thus isotopic curves for $\mu = -1, -2, \text{ etc.}$ describe nuclei of positron emitters

and are mirror images of curves $f = 1, 2$, etc. Certain conclusions are drawn from these curves: (1) stable nuclei without exception lie in the comparatively narrow range of Z/A from 0.5 to 0.4; (2) it is established that a periodic alternation of β^- and β^+ activity can be regarded as a function of Z/A , so that a chemical element can be regarded as being isotopic period in the development of the nuclear system of a given charge having in view the successive formation of heavier nuclei; (3) the fundamental significance of α -bands and free neutrons in the structure of complex nuclei is stressed, the α -bands being related to α -radiation.

α -bands and free neutrons in the structure of complex nuclei is stressed, the α -bands being limited to 40, 100, 200, 400, 800, 1600, 3200, 6400, 12800, 25600, 51200, 102400, 204800, 409600, 819200, 1638400, 3276800, 6553600, 13107200, 26214400, 52428800, 104857600, 209715200, 419430400, 838860800, 1677721600, 3355443200, 6710886400, 13421772800, 26843545600, 53687091200, 107374182400, 214748364800, 429496729600, 858993459200, 1717986918400, 3435973836800, 6871947673600, 13743895347200, 27487790694400, 54975581388800, 109951162777600, 219902325555200, 439804651110400, 879609302220800, 1759218604441600, 3518437208883200, 7036874417766400, 14073748835532800, 28147497671065600, 56294995342131200, 112589990684262400, 225179981368524800, 450359962737049600, 900719925474099200, 1801439850948198400, 3602879701896396800, 7205759403792793600, 14411518807585587200, 28823037615171174400, 57646075230342348800, 115292150460684697600, 230584300921369395200, 461168601842738790400, 922337203685477580800, 1844674407370955161600, 3689348814741910323200, 7378697629483820646400, 14757395258967641292800, 29514790517935282585600, 59029581035870565171200, 118059162071741130342400, 236118324143482260684800, 472236648286964521369600, 944473296573929042739200, 1888946593147858085478400, 3777893186295716170956800, 7555786372591432341913600, 15111572745182864683827200, 30223145490365729367654400, 60446290980731458735308800, 120892581961462917470617600, 241785163922925834941235200, 483570327845851669882470400, 967140655691703339764940800, 1934281311383406679529881600, 3868562622766813359059763200, 7737125245533626718119526400, 15474250491067253436239052800, 30948500982134506872478105600, 61897001964269013744956211200, 123794003928538027489912422400, 247588007857076054979824844800, 495176015714152109959649689600, 990352031428304219919299379200, 1980704062856608439838598758400, 3961408125713216879677197516800, 7922816251426433759354395033600, 15845632502852867518708790067200, 31691265005705735037417580134400, 63382530011411470074835160268800, 126765060022822940149670320537600, 253530120045645880299340641075200, 507060240091291760598681282150400, 1014120480182583521197362564300800, 2028240960365167042394725128601600, 4056481920730334084789450257203200, 8112963841460668169578900514406400, 16225927682921336339157801028812800, 32451855365842672678315602057625600, 64903710731685345356631204115251200, 129807421463370690713262408230502400, 259614842926741381426524816461004800, 519229685853482762853049632922009600, 1038459371706965525706099265844019200, 2076918743413931051412198531688038400, 4153837486827862102824397063376076800, 8307674973655724205648794126752153600, 16615349947311448411297588253504307200, 33230699894622896822595176507008614400, 66461399789245793645190353014017228800, 132922799578491587290380706028034457600, 265845599156983174580761412056068915200, 531691198313966349161522824112137830400, 1063382396627932698323045648224275660800, 2126764793255865396646091296448551321600, 4253529586511730793292182592897102643200, 8507059173023461586584365185794205286400, 17014118346046923173168730371588410572800, 34028236692093846346337460743176821145600, 68056473384187692692674921486353642291200, 136112946768375385385349842972707284582400, 272225893536750770770699685945414569164800, 544451787073501541541399371890829138329600, 1088903574147003083082798743781658276659200, 2177807148294006166165597487563316553318400, 4355614296588012332331194975126633106636800, 8711228593176024664662389950253266213273600, 17422457186352049329324779900506532426547200, 34844914372704098658649559801013064853094400, 69689828745408197317299119602026129706188800, 139379657490816394634598239204052259412377600, 278759314981632789269196478408104518824755200, 557518629963265578538392956816209037649510400, 1115037259926531157076785913632418075299020800, 2230074519853062314153571827264836150598041600, 4460149039706124628307143654529672301196083200, 8920298079412249256614287309059344602392166400, 17840596158824498513228574618118689204784332800, 35681192317648997026457149236237378409568665600, 71362384635297994052914298472474756819137331200, 14272476927059598

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

FROM: 131114Z

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01409 015 016 017 018 019 020 021 022 023 024 025 026 027 028 029 030 031 032 033 034 035 036 037 038 039 040 041 042 043 044 045 046 047 048 049 050 051 052 053 054 055 056 057 058 059 060 061 062 063 064 065 066 067 068 069 070 071 072 073 074 075 076 077 078 079 080 081 082 083 084 085 086 087 088 089 090 091 092 093 094 095 096 097 098 099 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 102

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332. The periodic law of atomic nuclei. (Nuclear analogies of elements in the periodic system of atomic nuclei. A. P. Zaitsev, Dokl. Akad. Nauk. SSSR, 68 (No. 6) 1021-4 (1940) in Russian.

[See preceding Abstr.]. When the specific nuclear charge Z/A is plotted against Z for even and odd values of Z for the primary (i.e. the most abundant), isotopes within the limits of the 4 main periods there is observed a periodic repeated rise and fall in the value of Z/A from each even to the next odd element. The graph defines the beginning and end of each type of nuclear structure and serves as a basis for forming a periodic system of elements. In the periodic table constructed the physical periods of the atomic nuclei are disposed vertically while the type of atomic nuclei is shown horizontally. Alongside the symbol for each element the isotopic number $f = (A - 2Z)$ and Z/A are given for the primary isotopes. The development of the electronic structure in the periods is considered and it is concluded that the structure of the electronic shells of the atoms is connected with the change of structure and charge in Z/A of complex nuclei in the system of elements, this change in Z/A should depend not only on the amount of free neutrons but also on the mutual distribution of particles in complex nuclei. W. NUKEMAN

ASS. SLA METALLOGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND 1440P		PERCENTAGE AND FREQUENCY INDEX																																																																																																						
1301																																																																																																								
THE PROBLEM OF ELEMENTS 97 AND 98. A. P. Zaslavsky and V. I. Semakina. Doklady Akad. Nauk S.S.S.R. 74, 917-19 (1970) Oct. 11. (In Russian)																																																																																																								
The discovery of elements 97 and 98 was predicted by Zaslavsky (Doklady Akad. Nauk S.S.S.R. 69, No. 2, (1949)) on the basis of his periodic table of isotopes, which reveals periodic changes in the properties of isotopes as a function of the ratio Z/A and shows the number of possible isotopes and their radioactive characteristics (Doklady Akad. Nauk S.S.S.R. 48, No. 3, (1949)). Thus, the types of radioactivity																																																																																																								
and approximate half-life periods of the newly discovered 97^{104} , 97^{106} , and 98^{104} have been foreseen. It is further predicted that long-lived isotopes 97^{104} , 97^{106} , 97^{108} , 97^{110} , and 98^{106} will also be discovered and will permit an adequate study of those elements' chemical properties. The element 97, which follows "curium," should be named "Mendelevium" (Md).																																																																																																								
A.S.S.S.R. METALLURGICAL LITERATURE CLASSIFICATION																																																																																																								
<table border="1"> <thead> <tr> <th>GROUP</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>10</th> <th>11</th> <th>12</th> <th>13</th> <th>14</th> <th>15</th> <th>16</th> <th>17</th> <th>18</th> <th>19</th> <th>20</th> <th>21</th> <th>22</th> <th>23</th> <th>24</th> <th>25</th> <th>26</th> <th>27</th> <th>28</th> <th>29</th> <th>30</th> <th>31</th> <th>32</th> <th>33</th> <th>34</th> <th>35</th> <th>36</th> <th>37</th> <th>38</th> <th>39</th> <th>40</th> <th>41</th> <th>42</th> <th>43</th> <th>44</th> <th>45</th> <th>46</th> <th>47</th> <th>48</th> <th>49</th> <th>50</th> <th>51</th> <th>52</th> <th>53</th> <th>54</th> <th>55</th> <th>56</th> <th>57</th> <th>58</th> <th>59</th> <th>60</th> <th>61</th> <th>62</th> <th>63</th> <th>64</th> <th>65</th> <th>66</th> <th>67</th> <th>68</th> <th>69</th> <th>70</th> <th>71</th> <th>72</th> <th>73</th> <th>74</th> <th>75</th> <th>76</th> <th>77</th> <th>78</th> <th>79</th> <th>80</th> <th>81</th> <th>82</th> <th>83</th> <th>84</th> <th>85</th> <th>86</th> <th>87</th> <th>88</th> <th>89</th> <th>90</th> <th>91</th> <th>92</th> <th>93</th> <th>94</th> <th>95</th> <th>96</th> <th>97</th> <th>98</th> <th>99</th> <th>100</th> </tr> </thead> </table>				GROUP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
GROUP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100				

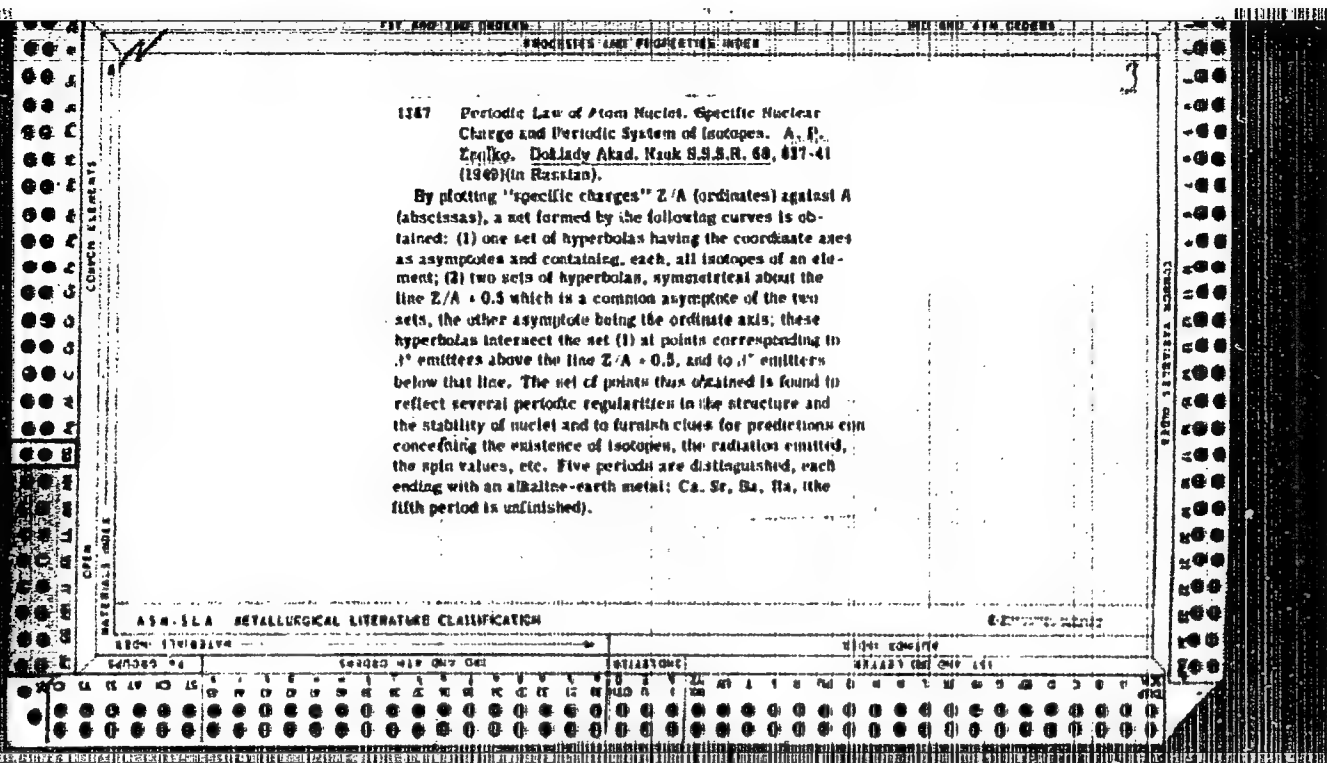
1684 Periodic Law of Atom Nuclei. Isotopes Near the
End of the Periodic Table. A. P. Zolotarev, Doklady
Akad. Nauk S.S.S.R. 69, 149-71 (1949) (In Russian).
(See also NSA 4-1204 and 1267.)

This is a third note on the author's "periodic system of nuclei" (see Doklady Akad. Nauk S.S.S.R. 66, 837 and 1021 (1949)), in which all isotopes, arranged according to co-ordinates Z/A and A , can be connected by various lines revealing regularities that concern half-lives, radioactivity, etc. In the present note, a detailed chart of that kind is given for elements with $Z \leq 76$. Several examples illustrate the possibility of predictions concerning unknown long-living isotopes and elements, such as ^{150}Po , ^{150}At , ^{150}Bi , ^{150}Pb , and ^{100}Sn .

ASD-LLA METALLURGICAL LITERATURE CLASSIFICATION

CIA-RDP86-00513R002065320012-0"

157 AND 158 INDEX		PROCEDURE AND ELECTRIC INDEX		4 8	
<p>1386 Periodic Law of Atom Nuclei. Chemically Analogous Elements in the Periodic Table of Atom Nuclei. A. P. Zolko, Doklady Akad. Nauk S.S.S.R. 68, 1021-4 (1949) (in Russian).</p> <p>Continuing the exposition of a periodic arrangement of nuclei, based on a system of curves in which the "specific charges" Z/A are plotted against A, (Doklady Akad. Nauk S.S.S.R. 68, 857 (1949)), the author derives a table of elements uniting the features of his "structural" periods with those of the periodic reappearance of chemical properties. The periodic changes in the specific charge are tied in with the filling of the various electronic shells.</p>					
<p>ASB-56 METALLURGICAL LITERATURE CLASSIFICATION</p>					
<p>FROM 170001178</p>					
<p>157 AND 158 INDEX</p>					
<p>157 AND 158 INDEX</p>					



600 THE DETERMINATION OF SPEECH INTELLIGIBILITY
IS A MATTER WITH A LIMITED FREQUENCY BAND
IN CONNECTION WITH SPEECH SYSTEMS. (Soviet
Gov. Zhurnal Tekhnicheskoye Slovo, Leningrad
12, 1010, pp. 12-14)

Modern conceptions regarding the effect on speech
articulation of the width of the frequency band trans-
mitted are reviewed, and methods are indicated for deter-
mining articulation for narrow frequency bands. The
results obtained are applied to the case of a standard
speech equipment, and the minimum number of the
frequency bands is determined, into which the main band
should be split up to ensure that speech will remain un-
intelligible on any one of these bands if this is broken
up by an interference factor.

Some information is available on the effect of
shipboard conditions of various kinds on the intelligi-
bility of speech. Based on P. D. F. experiments with the English language, it is
expected that this will generally be similar to the
same reached.

50

B-I-3

Dielectric constant of petroleum and its products. V. Enyan (Azerbaij. Ref. Chem., 1930, No. 12, 88-98). The dielectric const. of petroleum and paraffins increase with increase in d. b.p., and mol. wt., and are approx. equal to n_D^2 . For petroleum the temp. coeff. is negative. The dielectric const. of naphthenic acids increase with increase in d. b.p., surface tension, n_D , and mol. wt. CHEMICAL ABSTRACTS.

ASAC-55A METALLURGICAL LITERATURE CLASSIFICATION

ASAC-55A	ASAC-55B	ASAC-55C	ASAC-55D	ASAC-55E	ASAC-55F	ASAC-55G	ASAC-55H	ASAC-55I	ASAC-55J	ASAC-55K	ASAC-55L	ASAC-55M	ASAC-55N	ASAC-55O	ASAC-55P	ASAC-55Q	ASAC-55R	ASAC-55S	ASAC-55T	ASAC-55U	ASAC-55V	ASAC-55W	ASAC-55X	ASAC-55Y	ASAC-55Z

Artificial stone slabs. A. V. Znamevskij and I. V. Tavaneta. Russ. 41,427, Jan. 19, 1957. The slabs are prep'd. from sand contg. clay, soln. of water glass and acid from superphosphate plants contg. F compds.

Producing slag structural brick and investigating its properties. I. I. Znachko-Vaynskiy, Stroitel. Materialy 1938, No. 4, 45 (61).—Industrial plant practice is discussed.
E. E. Stefanowich

CA 20

Utilization of manganese blast-furnace slags by the cement industry. T. A. Zrachko-Yakovlev. *Trudy* 17, No. 3, 17-21(1971).—Strength tests on specimens made from cement produced with MnO-cntg. slags from various sources (blast-furnace ferromanganese, casting pig iron, open-hearth and Bessemer iron) showed the suitability of these slags for cement. Details of tests and compo. not given. M. Horik.

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

CA

Synthesis of sulfanilamide from chlorobenzene. A. M. Grigorovskii and K. I. Zinzy, *Farmatsiya* 10, No. 2, 19-23(1947). - To make $\text{H}_2\text{NC}_6\text{H}_4\text{SO}_2\text{NH}_2$, com. PhCl is treated with ClSO_3H (mol. ratio 1:3) at 25° . The product is acylated with 25% NH_4OH (20-120 min. at room temp., 30 min. at $80-90^\circ$), then aminated with 25% NH_4OH in the presence of a Cu catalyst by autoclaving 8 hrs. at 150° . The final yield is about 30% of theory, calcd. on PhCl .

Julian P. Smith

ASAC 514 METALLURGICAL LITERATURE CLASSIFICATION

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REMARKS

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REMARKS

10

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1ST AND 2ND ORDERS

EXERCISES AND REPERCUSSIONS

New method of preparation of ethyl lactate. G. A. Kirilov and N. A. Zhurav. *Khim. Farm. Press*, 1933, 280-1. Ca lactate (208 g.) is dissolved in 600 cc. of hot H₂O, 250 g. of CuSO₄ in 300 cc. of boiling H₂O is added, and the Cu lactate is filtered off and dried. Cu lactate (180 g.) is heated with 100 g. of 95% alc. and 1.84 g. of 27% picric acid with a reflux condenser until congo paper shows a neutral reaction (6-8 hrs.), the CuSO₄ is filtered and the soln. fractionated at 40 mm. The yield is 64%. L. Nasarevich

ASB-ILA METALLURGICAL LITERATURE CLASSIFICATION

SERIES 1A										SERIES 2A										SERIES 3A										SERIES 4A									
SERIES 1A										SERIES 2A										SERIES 3A										SERIES 4A									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

CA

15

Synthesis of some homologs of cardiac glucosides. 1.
 Synthesis of two isomers β -phenanthryl- Δ^2 -butenolides
 S. I. Kurevskaya and K. A. Zaslava (S. Ordzhonikidze All-
 Union Chem.-Pharm. Inst., Moscow). *Zhur. Obshch.
 Khim. (J. Gen. Chem.)* 21, 1721-9 (1951). — 3-Acetylphen-
 anthrene (3 g.), 1-2 g. coppered Zn shavings, and 45 ml.
 C_6H_6 (freed of any H_2O by distn. of a portion) reduced 4
 hrs. with a crystal of iodine and 2.3 g. $\text{BeCl}_2\text{CO}_2\text{Me}$, then
 treated with ice and dil. H_2SO_4 , and the org. layer concd.
 gave an oily mass of 11a β -acetyl-3-phenanthrenylacrylate,
 which, heated 3 hrs. with 80% HCO_2H , quenched in H_2O , and
 extrd. with Et_2O gave the corresponding acrylate (I), a non-
 crystallizable oil, saponified by alc. KOH to the free acid,
 m. (crude), 73-85°; Ag salt, solid, obtained in pure state.
 Refluxing 0.5 g. I with Ac_2O and 0.4 g. SeO_2 in a little H_2O 2
 hrs., and chromatography of the org. products on Al_2O_3 in
 CHCl_3 gave 0.15 g. β -(3-phenanthryl)- Δ^2 -butenolide, m.
 177.5-8.5° (from $\text{CHCl}_3\text{-EtOH}$). 2-Acetylphenanthrene
 similarly gave the β -(2-phenanthryl) isomer, m. 199-200°
 (from C_6H_6). The products do not have the physiol. ac-
 tivity of the cardiac glucosides. G. M. Komolodt

Influence of sulfuric acid on the quality of electrically welded spots in overheating sulfuric acid equipment. *Zhukhchenko, K. V. Timofeev. Novosti Nefteservicekh 3, No. 8, p. 35 (1963).* Iron plates were given the following treatment before elec. welding: (1) original material, without any treatment, (2) metal covered with acid, without treatment, (3) the same, washed with water and (4) the same, but neutralized with NaOH and washed with water. Mech. tests carried out with all welded plates gave the best results with samples (1) and (4), thus indicating that metal which was previously in contact with acid must first be neutralized and washed with water before welding was attempted. A. A. Boechling

A. A. Boehling

ASAC-55A METALLURGICAL LITERATURE CLASSIFICATION

PROCESS AND PROPERTIES INDEX																									
COMMON ELEMENTS													SPECIAL NOTES												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
CA																									
<p>The application of high-chromium cast iron for the disks of centrifugal water pumps. S. Zhabchenko, <i>Nesloperabotki</i> 3, No. 2, 78 (1965). The corrosion and wear of the above disks were greatly reduced by Fe-Cr 64.0, Fe-Si 2.7 and iron cuttings 31.3% for the disks. The Fe-Cr contained C 2.06, Cr 53.04 and Si 0.10%. while Fe-Si was composed of C 0.004 and Si 49.02%.</p> <p>A. A. Bochtling</p>																									
<p>ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>FROM LITERATURE</p>																									

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22

Hydrolysis of salts present in oil-well waters at elevated temperatures. V. F. Negreov and S. G. Znaichenko. *Novosti Neftesveroboi* 3, No. 17, 1-2(1933).—The salts in some well waters produce HCl according to the following equations: (1) $MgSO_4 + H_2O + 2NaCl = Na_2SO_4 + MgO + 2HCl$; and (2) $MgCO_3 + 2NaCl + H_2O = Na_2CO_3 + MgO + 2HCl$. Investigations were carried out with waters derived from various sections of the refining equipment (autoclaves were used). The water was distd. after certain temps. were reached. The analytical data on the distd. water indicate that acid makes its appearance in water heated to 170-180°, corrosion increasing rapidly at a temp. in excess of 220°. The water remaining in the autoclave slightly increased its alk., evidently through the formation of MgO which at the beginning reacted with some of the HCl, thus lowering the apparent acidity. A good water-oil sepn. in the oil fields is recommended, and in the refinery. Chem. agents to protect the refinery app. are also recommended.

A. A. Bochtlingk

ASACSLA METALLURGICAL LITERATURE CLASSIFICATION

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COMMON ELEMENTS		PROCESSING AND PROPERTIES INDEX	
<p>Aluminum plating for the protection of metals from high-temperature oxidation. V. P. Negirev and S. G. Znaichenko. <i>Met. T.</i> No. 5, 24-5 (1936).--The advantages of Al-plating of various parts of equipment exposed to high temps. are discussed. A. A. Hochling.</p>		<p>ASH-LLA METALLURGICAL LITERATURE CLASSIFICATION</p>	
<p>REGION 11-11-11-11</p>		<p>REGION 11-11-11-11</p>	
<p>GROUP 11-11-11-11</p>		<p>GROUP 11-11-11-11</p>	

BC

B-I-1

Application of high-chromium cast iron for discs of centrifugal water pumps. S. Znaitschenko (Nec. Neft., 1936, 8, No. 1, 7-8). —The corrosion and wear were greatly reduced by using Fe-Cr 68-0, Fe-Si 2-7, and Fe cuttings 21-3% for the discs. The Fe-Cr had C 2-08, Cr 63-08, and Si 0-18%; the Fe-Si had C 0-04 and Si 49-02%. Ch. Ass. (a)

ASM-A Metallurgical Literature Classification

GROUP	CLASS	SUBCLASS	SECTION	SERIAL	DATE	AUTHOR	TITLE	NOTE
1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2
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BC		B-I-B	
<p>Influence of sulphuric acid on quality of electrically welded joints in overhauling sulphuric acid equipment. B. Zaitseva and V. Timofeev (Nov. Neft., 1956, 2, No. 6, 4-5). Tests showed that metal which was previously in contact with acid must first be neutralized and washed with H₂O before welding is attempted. (U. Sov. 6)</p>			
<p>ASAC 314 LITERATURE CLASSIFICATION</p>			
<p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>			

ZNAMENSKIY, A. I.

Wind Erosion and the Relief of Sand Deserts, Thesis for degree of Cand.
Geographical Sci. Sub 15 April 49, Inst of Geography, Acad Sci USSR.

Summary 82, 18 Dec 52, Dissertations Presented for Degrees in Science and Engin-
eering in Moscow in 1949. From Vechernyaya Moskva, Jan-Dec 1949.

ZNAMENSKAYA, A.K.,
V. A. MASLOVSKII, Caoutchouc and Rubber 1938, No.4, 76-82

CA

The significance of the six ash elements in the life activities of plants. I. A. Znamenskaya. *Antin Zhur.* 26, 330-37 (1949); *Herbager* 1949:17; No. 17:80 (1949).
—An attempt to coordinate the data which have been published during the past decade on the participation of K, Ca, Mg, Fe, S and P in the biol. functions of higher plants. S. Solovetshik

AS 4. SLA METALLURGICAL LITERATURE CLASSIFICATION

15

CA

Gas-volumetric determination of potassium in soils.
V. M. Gortikova and E. A. Zayernitskaya, Proc. Lenin-
grad Dept. Inst. Agr. 57-58 (1953) -- If the conditions
of pptn. (temp., vol. and concn.) are similar for both the
known and standard KCl, the method of Jander and Fisher
(C. A. 22, 3370; 23, 4639) is rapid and sufficiently ac-
curate for the detn. of K in most soil exts. B. C. A.

COMMON ELEMENTS

OPEN

MATERIALS INDEX

ASH, SLA METALLURGICAL LITERATURE CLASSIFICATION

SECTION SYMBOL

SECTION MAP AND DET

SECTION SYMBOL

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CA

15

Gas-volumetric determination of potassium in soils.
V. M. Gortikov and L. A. Znamenskaya. Proc. Lenin-
grad Dept. Inst. Fert. 10, 67-88(1930). The conditions
of potn. (temp., vol. and concn.) are similar for both un-
known and standard KCl; the method of Jander and Haber
(C. A. 22, 3370; 23, 4530) is rapid and sufficiently ac-
curate for the detn. of K in most soil exts. B. C. A.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

RECORD NUMBER

INTRODUCTION

ABBREVIATION

PRINTED ON ONE SIDE